

A marked up version showing the changes made to the application is attached.

Restriction Requirement

The telephonic election of Group I is affirmed.

Objection to Specification

The objection to the drawings is mooted by amending the specification to delete reference "136."

Claims Rejections -35 USC § 112, 2nd ¶

Claim 1 stands rejected as being indefinite, on the grounds that it is unclear how the indicia is "defined" by a fluorescent material. The rejection is respectfully traversed on the ground that a prima facie case of indefiniteness has not been established.

In rejecting a claim under the second paragraph of Section 112, it is incumbent on the Examiner to establish that one of ordinary skill in the art, when reading the claims in light of the supporting specification, would not be able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. Ex parte Wu, 10 USPQ 2d 2031, 2033 (B.P.A.I.) 1989). Here, no showing has been made to establish the prima facie case. The rejection should be withdrawn.

Claims Rejections - 35 USC § 102

Claims 1-6, 9, 11-13 stand rejected as being anticipated by Chatwin et al. ("Chatwin"). This rejection is respectfully traversed in that a prima facie case of anticipation has not been established.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The elements must be arranged as required by the claim. MPEP § 2131.

102 Here, Chatwin does not disclose each element as set forth in Claim 1. Particularly, Chatwin does not describe a machine-readable indicia-bearing substrate comprising:

a first information bearing indicia defined by a fluorescent material positioned adjacent to the first surface;

a second information bearing indicia defined by a fluorescent material positioned adjacent to the second surface;

means for preventing interference between a first fluorescing signal emitted by the first indicia and a second fluorescing signal emitted by the second indicia during a detection process.

Insofar as Chatwin is understood, none of the examples describe first and second indicia defined by a fluorescent material as recited in the claim, nor a means for preventing interference between a first fluorescing signal. Chatwin describes that a bank note thread can have miniature holographic areas subtly overprinted with indicia receptive coating presented with or containing as windows defining fine security indicia, and that "both sides of the thread may be embossed, metallised and printed. (12:61-67) It is not clear what is meant by "both sides" of a thread. Clearly there is no teaching of the thread having the elements of Claim 1 as recited above. Nor is Chatwin directly to the problem of providing indicia on respective surfaces of a substrate, and reading each of the indicia without interference from the other indicia during a detection process. Thus there is no teaching of a means for preventing interference as set out in Claim 1.

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The rejection under Section 102 should be withdrawn. A prima facie case of anticipation has not been established, and the reference does not describe each element of Claim 1.

Claims Rejections -35 USC § 103

Claims 1, 7-8 and 14 stand rejected as being unpatentable over Chatwin in view of Hiraishi et al. ("Hiraishi").

Claims 1 and 10 stand rejected as being unpatentable over Chatwin in view of Mansukhani.

These rejections are respectfully traversed, on the ground that a prima facie case of obviousness has not been established, and the references do not teach or suggest the claimed invention.

With respect to the combination of Chatwin and Hiraishi, there is no suggestion to combine the references in such a way as to provide the claimed invention. Chatwin describes a decorative article, that contains both a viewable optically variable effect such as a hologram. Hiraishi describes a color-image recording material, wherein microcapsules containing therein a photohardenable resin and a colorant are arranged in a striped or mosaic pattern in a layer on a substrate, exposing the color-image recording material with ultraviolet, visible or infrared rays, and then applying heat or pressure to rupture the capsules in unexposed areas, to release the liquid substances in the microcapsules. The released liquid substances migrate to a light proof white layer and make the layer selectively transparent, so that picture elements become visible through the transparent portions and are recognized as a color image. (2:64 to 3:24)

The Examiner alleges that Hiraishi shows that the support can be made of a composite sheet made from materials such as metal foil, paper, various nonwovens, plastic films, and synthetic paper. The Examiner holds that it would have been obvious (i) to make the substrate of applicants' invention which comprises metal foil because such a support is known in the art, (ii) to make a composite sheet of a combination of paper (first and second layers of substrate material) and an incorporation of metal foil (reflective layer), and (iii) to arrange the layers which are well known in the art in a manner that would result in an effective substrate. Applicants respectfully disagree.

Not
Persuasive

Measuring a claimed invention against the standard established by 35 USC 103 requires the critical step of casting the mind back to the time of invention, to consider only the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the art. The case law of the Federal Circuit makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. Evidence of a suggestion, teaching or motivation may flow from the

prior art references themselves, the knowledge of one of ordinary skill in the art, or in some cases, from the nature of the problem to be solved. The range of sources available, however, does not diminish the requirement for actual evidence. The showing of such actual evidence must be clear and particular. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. The required showing of evidence should include particular factual findings. In re Dembiczak, 50 USPQ 2d 1614, 1617 (Fed.Cir. 1999).

Here, the rejection is the product of prohibited hindsight reconstruction, using applicants' specification as a blueprint to find an assortment of elements in different references. Chatwin and Hiraishi are unrelated, and there is no teaching or suggestion in either reference to modify one reference based on the other, no suggestion as to any advantage to be obtained by such modification, nor any recognition that the alleged modification would result in a workable structure. Moreover, the allegation that all claim elements are known in the art is insufficient to establish prima facie obviousness without some objective reason to combine the teachings of the references. MPEP § 2143.01

The rejection of Claims 1 and 10 as being unpatentable over Chatwin in view of Mansukhani is also the product of attempted hindsight reconstruction, and should be withdrawn. Because Chatwin does not disclose all elements of Claim 1, and Mansukhani is relied upon only for a teaching of a particular dye, the combination fails to disclose or teach the invention of Claim 1, for reasons similar to those discussed above regarding the combination of Chatwin and Hiraishi.

New Claims

New Claims 32-37 are also in condition for allowance. Claim 32 depends from Claim 1, and recites that the substrate is a planar substrate, and the first surface is parallel to the second surface, further distinguishing from the thread of Chatwin.

Claims 33-37 are new independent claims, all drawn to machine-readable indicia-bearing substrate structures. Claims 33-36 recite a planar substrate structure, and are allowable for reasons similar to those discussed above regarding Claims 1 and 32. Claim 37 recites a planar print medium, to which first and second

information bearing indicia are positioned adjacent respective first and second surfaces of the print medium. Claim 37 is allowable for reasons similar to those discussed above regarding Claims 1 and 32.

CONCLUSION

The outstanding objections and rejections have been addressed, and the application is in condition for allowance. Such favorable reconsideration is solicited.

Respectfully submitted,

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Dated: April 12, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The paragraph appearing at page 8, lines 4-15, has been amended as follows:

In an exemplary embodiment, the tape structure is prefabricated in a roll of tape material, from which are cut or slit respective tape strips in a desired width. The tape strips are then applied to respective sheets of the print media, e.g. along the leading edge. This is shown in FIG. 8, wherein a sheet 130 of a print medium such as a clear polyester used for overhead projection has applied along its leading edge 132 a strip 134 of a tape structure [136] as illustrated in any of FIGS. 3-7, with indicia formed on each side of the tape. A layer of adhesive can be used to adhere the strip to the print media. Since the strip is of narrow width, the indicia on the respective sides will overlap in a direction normal to the sheet in a typical application. In such an exemplary application, the indicia on each side can extend the full length of the strip to avoid the need to register the position of the indicia relative to the sensor.